REMARKS

Amendments to the Claims

The claims have been amended to change "an insert" to "a self-supporting run-flat insert" as presented in original claim 4, and as suggested by the Examiner in the Office Action. Thus, the amendment to claims 6 and 7 does not change the scope of the claims, and the amended claims recite the same claimed invention as was understood by the Examiner to be originally claimed by Applicants.

35 U.S.C. § 102(b)

Claims 1-5 have been rejected under 35 U.S.C. § 102(b) as anticipated by Sandstrom (US 6,230,773). This rejection is predicated on the position that only the tire is being claimed and the bead width of the tire is independent of the tire rim width.

Claim 1 has been cancelled, thus this rejection is no longer application

35 U.S.C. § 103

Claims 1-7 have been rejected under 35 U.S.C. § 103 as being obvious over Tokutake (US 5,117,886) in view of Sandstrom.

Tokutake discloses a pneumatic tire wherein the axial distance of the bead heels increases upon inflation to provide improved vehicle turning performance/cornering power. Tokutake is silent about the inclusion of self-supporting inserts in the sidewalls, and Sandstrom is relied upon for such teachings. It is stated that "inserts are extremely well known and extensively used in the tire industry," thus it would have been obvious to include such inserts in the tire of Tokutake to have the benefits of run-flat performance, presumably, with the improved vehicle turning and cornering performance.

Applicants respectfully disagree on several points.

First, self-supporting inserts in tires are not extensively used in the tire industry. While all the major tire manufacturers have developed some variation of the self-supporting tire, the automotive industry has been slow to adopt this technology. Of this type of technology, the first commercial use was the Goodyear EMT tire on the Corvette. Since then, use of the self-supporting tire on new automotive platforms has been extremely limited. Only in the past few years, since the filing of the current application, has the number of new vehicle platforms provided with any run-flat technology increased by any significant measure; and most of the new platforms provide the run-flat technology as only optional equipment.

After-market sales are negligible, as retrofitting a vehicle with run-flat tires also requires costly retrofitting the vehicle with some sort of air pressure monitoring system.

Second, in the Office Action, it is stated that Tokutake discloses a tire with improved vehicle turning performance and cornering power. A thorough reading of Tokutake reveals that the improved turning and cornering properties of the tire is achieved by forming a tire with a inner sidewall portion 8 of increased rigidity and an outer sidewall portion 9 with a relatively low rigidity. This is achieved by multiple construction elements: a) increased reinforcement layers 18, 19 in the inner sidewall portion 8, b) higher carcass turnups, and c) shaping the molded tire to have a maximum section width, at point C, to be radially outward of the mid-sidewall height (col 3, line 20 – col 4, line 12). After inflation of the tire upon the rim, the maximum section width shifts downward, and the outer sidewall portion is deformed in the axially outward direction.

Tokutake teaches that the upper portion of the sidewall must have a decreased rigidity to achieve the maximum cornering forces and improve the vehicle turning performance (col 7, line 62 – col 8, line 15). Self-supporting inserts in a tire significantly increases the rigidity of the upper sidewall portion. Thus, one skilled in the art would not seek to provide the tire of Tokutake with self-supporting runflat inserts as the inclusion of such inserts is contrary to the teachings of Tokutake.

Thirdly, as noted in the specification, the concept of molding the bead base width of a run-flat tire equal or less than the rim width is contrary to the conventional technology and accepted wisdom in manufacturing self-supporting run-flat tires. Due to the requirement for the beads to stay on the rim during uninflation, it has always been the conventional thought that the bead base width *must* be greater than the rim width, to provide the tire with the extra tension to stay seated on the rim. The present invention is contrary to conventional practice.

Because the molding of the bead base width as recited is antithetical to conventional thought and practice, one skilled in the art at the time of the invention was made would not have looked at the tire of Tokutake and found it obvious to use the Tokutake's tire as a base teaching for a self-supporting run-flat tire.

Additionally, there is no teaching in either Sandstrom or Tokutake about eliminating stress on the inserts during mounting of the tire as recited. In fact, Tokutake teaches that there should be increased tension on the lower sidewall during mounting (col 8, lines 1-15) to achieve the desired goals. Thus, the combination of references fails to teach all the claimed limitations.

In order to establish *prima facie* obviousness, there 1) must be some suggestion or motivation in the art to modify or combine the references; 2) must be a reasonable expectation of success and 3) the combined references must teach or suggest all the claim limitations. Graham v. Deere

As argued above, the present rejection lacks suggestion or motivation to combine the references since the combination would actually destroy critical teachings of Tokutake, fails to establish a reasonable expectation of success for the same reasoning that the combination would destroy teachings of Tokutake and would not inherently result in a run-flat tire with improved cornering as set forth in the rejection, and the combined references fail to teach all of the claimed limitations.

As Tokutake in view of Sandstrom fails to establish *prima facie* obviousness of the invention as recited in claims 1-7, it is respectfully requested that the rejection be reconsidered and withdrawn.

In light of this amendment, all of the claims now pending in the subject patent application are allowable. Thus, the Examiner is respectfully requested to allow all pending claims.

Respectfully submitted,

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